

Minutes of the  
**CENTERS OF EXCELLENCE COMMISSION**

August 10, 2016  
 Conference Call originated from Department of Commerce  
 1600 East Century Avenue, Bismarck ND Icelandic Room

**CALL TO ORDER**

Mark N, Chairman, called the meeting to order at 9:01 am

**Commissioners Present:** Mark Nisbet, Greg Stemen, Mike Ness, Kevin Melicher, Tim Hennessy

**Commissioners Absent:** Jim Traynor

**Others Present:** Doug Olsen of UND, Al Anderson, Justin Dever and Christopher Kalash of the Department of Commerce

**COMMISSION BUSINESS**

**Consent Agenda**

Kalash provided an overview of the consent agenda items:

Research ND - Applied Research - Wind Turbine Blade Inspection Technology Application— Change PI  
 Phase 1 Venture Grant – Nanospheres to provide commercially important new properties to paints and coatings – Timeline extension  
 Phase 1 Venture Grant – Commercial Feasibility of Novel Renewable Based Polyamide Thermoplastics – minor budget modification and change PI  
 FAST Track - Produce Green Concrete from Fly Ash Waste in ND – final disbursement request  
 Phase 1 Venture Grant - Homing in on “effective” antibody responses to enhance PRRSV prophylaxis  
 Phase 1 Venture Grant Commercial Feasibility of Novel Renewable Based Polyamide Thermoplastics— final disbursement request

**It was moved by Stemen and seconded by Ness to approve the Consent Agenda.** Motion carried on a voice vote.

**Commission Business**

**Approval of draft minutes from May 27, 2016 and June 14, 2016**

**It was moved by Melicher and seconded by Hennessy to approve the Consent Agenda.** Motion carried on a voice vote.

**Research ND - Stingray: Integrating Beyond Visual Line Of Sight (BVLOS) Communications Capability into UAS - Change Request for timeline extension and budget change**

Kalash summarized the change request. The DoD is concerned about possible interference with existing systems and has decided that the radio spectrum that was to be used may not be used. The Command-non-payload-communications (CNPC) radios that Rockwell Collins provided for the project can be converted. The cost is estimated at just over \$48,000. With NPUAS TS involved, UND personnel costs are lower, there will be fewer flights. The parts/labor for the radio conversion will be where the money is moved. The radio conversion will take 5 months as a result, flights will not be able to take place until summer of 2017. Olsen added that they are also considering using some of the other aircraft available through the university and the test site.

**It was moved by Hennessy and seconded by Stemen allow the timeline extension request and budget modification. The motion carried on a voice vote.**

After this motion carried, Doug Olsen left the conference call

**Research ND– Stingray: Integrating beyond Visual Line Of Sight (BVLOS) Communications Capability into UAS – final disbursement request**

Kalash reviewed the request and stated that the reason this was not on the consent agenda was because of the need for action on the previous agenda item.

**It was moved by Melicher and seconded by Stemen approve the disbursement. The motion carried on a voice vote.**

**Research ND – Aviation Enterprise Resource Planning, Communications and Control – Change Request for timeline extension**

Kalash stated that Matt Noah, PI, is asking for a thirteen month extension. His reason for doing so is because some of the development will be done sequentially rather than concurrently. They are working with Beta customers, and feedback has lead them to believe that this will slow the process. The PI is up to date on interim reports and has stated that the progress is good.

**It was moved by Hennessy and seconded by Stemen to approve the timeline extension request. The motion carried on a voice vote.**

**Phase 1 Venture Grant - Radio Frequency Wireless Power for Industrial Sensors – Change Request for timeline extension**

Kalash stated that Dr. Noghianian, PI, was not able to hire a student until Fall 2016. Therefore, not much can be done until the student starts in August. The current end date is 1/1/2017. Research ND policy states that you may ask for a one time timeline extension of up to one year. This request is for 17 months. One year would be 1/1/2018. Interim reports state that the market research has been done.

**It was moved by Melicher and seconded by Ness to approve timeline extension. The motion carried on a voice vote.**

**Discussion of the funding allocations for Phase 1 and Phase 2 Venture Grants**

Kalash said that of the \$2 million initially placed in Phase 1, there is just over \$206,000 left in that funding line. There are just over \$856,000 in requests from the last round of applications for Phase 1 grants. \$2 million was also placed in Phase 2 and it has a balance of \$1.85 million. One Phase 2 grant has been awarded. Based on feedback from officials at UND and NDSU, Kalash said that it is likely that only \$750,000 in Phase 2 applications will be received before the end of the biennium. He recommended moving \$1 million from Phase 2 to Phase 1 to continue to encourage Phase 1 applications, but also be prepared to fund projects that are successful and ready to move on to Phase 2.

Ness asked if funding can be moved again if the commission makes this move. Dever stated that the commission may move it again by making such a motion.

Melicher said that it is important to encourage the Phase 1 PIs to be moving these projects in the direction of commercialization.

Anderson said he has made several visits to UND and met with President Kennedy and an hour each with engineering department heads. He was promoting Research ND and other Commerce programs to them.

Kalash stated that some of the new applicants came as a result of visits he made to both campuses in November of last year.

Ness said the commission needs to consider future funding. There may be less funding for this program in future years. If this is true, will focus need to shift to getting Phase 1 grantees into Phase 2? Anderson said that was a good point and Commerce is evaluating this. The goal of this program is to commercialize the new technology in North Dakota.

Melicher asked if campuses other than UND and NDSU are eligible for Research ND funds. Dever stated that the funds must go to these two campuses. Commerce has the Workforce Enhancement Grants that fund the two year

institutions. This brought about discussion about where the other four year schools fit into these programs. Nisbet mentioned that Lake Region State College has worked with UND on some COE and Research ND projects.

Melicher said with this structure, he can see how the western universities may feel that they are being left out. There may be projects in Minot or Dickinson that could work in conjunction with one of the research universities. Kalash stated that there are groups, such as EPSCor that have as one of their goals collaboration across the many campuses in North Dakota. Anderson added that the entrepreneurial centers have been the piece on those campuses. Commerce supports those. The Strom Center at DSU is reorganizing. The Severson Entrepreneurship Academy at MSU is doing well.

Ness suggested that getting on a future NDSU agenda to share information about Research ND and collaboration options for the four year institutions that are not research universities.

Dever stated that with the required budget cuts, \$146,458 will be cut from the Research ND. Nisbet asked what is left in Research ND, since this discussion was on Phase 1 and Phase 2 Venture Grants. Kalash said that with the cut Dever mentioned, Research ND has just over \$6.79 million.

**It was moved by Ness and seconded by Melicher to move \$1 million from Phase 2 funding to Phase 1 funding. The motion carried on a voice vote.**

Melicher asked how Research ND is being promoted to the academic departments. Anderson said that most of those communications are not directed to other universities. He has been pushing more to get RND out to private industries and asking the research universities to share with Commerce what their areas of expertise are so that Commerce staff can steer private business toward the research university that can help them with their needs. This conversation today about the other four year institutions was not something that was top of mind.

### **Administratively Approved Changes and Reports**

#### **Phase 1 Venture Grant Minor Budget Changes**

Kalash updated the commission on Phase 1 Venture Grant Minor Budget Changes

Development of inhibitors targeting gamma-herpesviruses – moved funds from personnel to supplies

Rational antigen design for porcine circovirus strain 2 (PCV2) vaccines and diagnostics, Homing in on “effective” antibody responses to enhance PRRSV prophylaxis – both moved funds from supplies to personnel due to significant savings realized by using another source for the pigs used in the project.

Development of Remote Patient Monitoring System-Vita WiPs - Bird Dog Innovations was hired to do the market research. It was initially listed in the budget as “other direct costs” and will be moved to “subcontracts.” Kalash stated that this has been done many times. Pls put it in this line in their applications and the business offices tell them that these costs should be in subcontracts.

#### **Research ND and Phase 1 Venture Grant initial disbursements**

Kalash updated the commission on Research ND and Phase 1 Venture Grant initial disbursements

RND-Powerline Component Failure Identification – UAS (\$150,000), Phase 1 Venture- – Unmanned Aircraft System (UAS) Support to Environmental Assessments for Industry Applications (\$49,988), 2,3-Butanediol Production via Fermentation, an Alternative Route to Chemical Synthesis, Using Synthesis Gas from Lignite Coal Gasification (\$50,000), ElectroMagnetic Inducible Digital Protein Expression Switch or EMID ProSwitch (\$50,000), Commercialization of Novel Lignin Reinforced Bioplastics by Using Game Changing Additive Manufacturing Practices (\$49,926), Development of Intelligent Integrated Networks for Rapid Pipelines Damage Detection and Health Monitoring (\$50,000), Development of novel anti-microbial materials for clinical and food processing applications (\$50,000), Development of Next Generation Agricultural Soil Amendments (\$46,830)

**Other information****Centers of Excellence Fund**

Kalash shared that there are \$3,776,162 in remaining committed funds.

Dever stated that CSCC has \$559,000 remaining. This amount is expected to be used up within the year. CATCOM has \$3.2 million and an end date of June 30, 2017. Decisions may need to be made about whether or not to allow this Center to stay open or receive an extension.

This fund expires in June 2023

**Centers of Research Excellence Fund**

Kalash shared that the Centers of Research Excellence fund has \$2,951,602 in remaining committed funds.

Dever provided overview of which CORES still have funding. Center for Life Sciences Research and Applications (\$1.1 million), Center for Technologically Innovative Processes and Products (\$802,000), Center for Gas Utilization (\$100,000), Center for Biobased Materials Science and Technology (\$948,650)

Mark asked how the COE Comm can participate in helping move the COREs forward and also need to talk about strategy going forward. Justin said we should arrange a meeting to discuss this NDSU since the majority of the funding that has not been drawn down is with centers on that campus.

Kevin stated that he would be in favor of returning unused funds. It is the right thing to do if the funding is not being used.

**Centers of Research Excellence Fund**

Kalash shared the status of the Research North Dakota fund

Dever stated that after the allotment, the balance in the fund will be \$6,791,527

**Reports received**

Kalash share the Research ND BIO Final Report for Research, Development and Commercialization of ParvoOne

Hennessy asked what will happen if the commercialization happens elsewhere? Al stated that there is no clawback in the law. He asked Justin what we can do about this. Justin stated that the hope is that Avianax will follow through with its promise to work in ND. There is a risk that they could license the technology out of state. UND owns 17% of the company. That is one reason that Commerce expects them to stay in ND. The president of Avianax has stated that he intends to keep the company here. Anderson said that Dr Kennedy believes more medical research should be happening at UND.

Melicher shared the same concern. He stated that it might be an idea to add a penalty to the awards if the technology is commercialized out of state. Dever said that the universities can receive royalties even if the technology is commercialized out of state.

**Phase 1 Venture Grant Interim Reports**

Kalash shared the Interim reports for the following Phase 1 Venture Grants – No concerns with any of these  
Development of glioma prognosis kit (third),  
Continued Development of Commercialization of Quality Characterization Technology for 3D Printing (first),  
Novel Anti-Inflammatory Drugs for Treating Alzheimer's Disease (third),  
Tunable Power Amplifier for Smart Phones (first),  
Radio Frequency Wireless Power for Industrial Sensors (first),  
New Renewable Polymers from Plant/Vegetable Oils (first),  
Rational antigen design for porcine circovirus strain 2 (PCV2) vaccines and diagnostics (fourth),  
Homing in on "effective" antibody responses to enhance PRRSV prophylaxis (fourth)

**Conflict of Interest Disclosure and Management Plan for Dr. Chad Ulven regarding the SEED Sensor Phase 2 Venture Grant**

Kalash shared that NDSU and Dr. Ulven have acknowledged the potential for a conflict of interest with his SEED Sensor project and the university has a plan in place to manage this

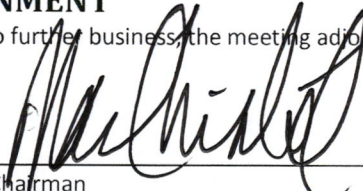
**Additional discussion**

Ness asked Anderson if he has an idea of what a new governor may mean for Commerce. Anderson said it is his intention that this program is one of the key ways ND can continue to diversify its economy. UND President Kennedy's message was good that he wants to be known as a world class research university. That will require some focus on key areas. NDSU was had that designation until recently. Anderson has met with Burgum and will meet with Nelson if he requests a meeting. In that meeting, he shared that he thinks that these programs are very important for growing the ND economy.

Nisbet stated that the idea behind creating Commerce was to have someone who can be depended upon to get things done. Special projects are given to Commerce. Anderson said that he thinks that Commerce will be structurally and conceptually the same regardless of the results of the election. The structure of this Commission is ideal. Members of the Economic Development Foundation and North Dakota University System working together to grow the state's economy and talented graduates.

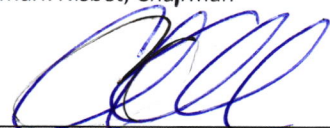
**ADJOURNMENT**

There being no further business, the meeting adjourned at 11:06 am

  
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Mark Nisbet, Chairman

Date

10-4-16

  
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Christopher Kalash, Recording Secretary

Date

10/4/16